

U.S. Patent Application No. 10/650,125
Amendment dated September 25, 2007
Reply to Office Action of June 25, 2007

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A method of providing product consistency of particulate material comprising the steps of:

a) obtaining at least two absorptometry curves, wherein at least one first absorptometry curve is obtained by combining a particulate material with a first liquid in an absorptometer and at least one second absorptometry curve is obtained by combining the particulate material with a second liquid in the absorptometer, wherein the first liquid is different from the second liquid;

b) extracting at least one value from the first absorptometry curve and at least one value from the second absorptometry curve;

c) comparing the at least one value from the first absorptometry curve to a first target value for determining if said at least one value from the first absorptometry curve is within a preselected first target range, and comparing the at least one value from the second absorptometry curve to a second target value for determining if said at least one value from the second absorptometry curve is within a preselected second target range; and

e) d) optionally adjusting a process used to prepare the particulate material when said comparing indicates that ~~maintaining~~ the value from the first absorptometry curve is not within a said first target range and or when said comparing indicates that ~~maintaining~~ the value from the second absorptometry curve is not within a said second target range for the particulate material.

2. (Original) The method of claim 1, wherein the particulate material is carbonaceous.

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3. (Original) The method of claim 1, wherein the particulate material is carbon black.
4. (Original) The method of claim 1, wherein the first liquid and the second liquid are selected from the group consisting of: dibutyl phthalate, paraffin oil, water, ethylene glycol, and mixtures thereof.
5. (Original) The method of claim 1, wherein the first absorptometry curve and the second absorptometry curve are obtained by measuring torque versus volume of the liquid added.
6. (Original) The method of claim 1, wherein the values extracted from the first absorptometry curve and the second absorptometry curve are selected from the group consisting of: the maximum torque, the volume of liquid at the maximum torque, the volume of liquid at a percentage of the maximum torque, the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.
7. (Currently amended) The method of claim 1, wherein when the value of the first absorptometry curve is not within said first target range or the value from the second absorptometry curve is not within said second target range for the particulate material, said adjusting of said process to prepare the particulate material is performed and further comprising the comprises a step of adjusting at least one process variable of a the process for producing the particulate material, wherein the adjustment maintains the values within the target ranges.

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8. (Original) The method of claim 7, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.

9. (Canceled)

10. (Canceled)

11. (Original) The method of claim 1, wherein the values are determined during the process for producing the particulate material.

12. (Original) The method of claim 1, wherein the values are determined prior to shipping the particulate material to a customer.

13. (Canceled)

14. (Currently amended) The method of claim ~~1~~ 11, wherein the values are extracted ~~on a~~ on a routine basis and compared and, if necessary, the process adjusted, periodically during the process to insure quality control.

15. (Canceled)

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16. (Currently amended) The method of claim 12, wherein the values are extracted ~~on a~~
~~routine basis~~ and compared and, if necessary, the process adjusted, periodically prior to shipping
to insure quality assurance.
17. (Withdrawn) A method of providing product consistency comprising the steps of:
- a) obtaining an absorptometry curve by combining a particulate material with a liquid in
an absorptometer;
 - b) extracting at least two different values from the absorptometry curve; and
 - c) maintaining the values within target ranges for the particulate material.
18. (Withdrawn) The method of claim 17, wherein the particulate material is carbonaceous.
19. (Withdrawn) The method of claim 17, wherein the particulate material is carbon black.
20. (Withdrawn) The method of claim 17, wherein the liquid is selected from the group
consisting of: dibutyl phthalate, paraffin oil, water, ethylene glycol, and mixtures thereof.
21. (Withdrawn) The method of claim 17, wherein the absorptometry curve is obtained by
measuring torque versus volume of the liquid added.
22. (Withdrawn) The method of claim 17, wherein the values extracted from the
absorptometry curve are selected from the group consisting of: the maximum torque, the volume
of liquid at the maximum torque, the volume of liquid at a percentage of the maximum torque,

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the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.

23. (Withdrawn) The method of claim 17, further comprising the step of adjusting at least one process variable of a process for producing the particulate material, wherein the adjustment maintains the values within the target ranges.

24. (Withdrawn) The method of claim 23, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.

25. (Withdrawn) The method of claim 17, further comprising the step of maintaining at least one morphological value within a morphological target range.

26. (Withdrawn) The method of claim 17, further comprising the step of maintaining at least one chemical value within a chemical target range.

27. (Withdrawn) The method of claim 17, wherein the values are determined during the process for producing the particulate material.

28. (Withdrawn) The method of claim 17, wherein the values are determined prior to shipping the particulate material to a customer.

29. (Withdrawn) The method of claim 17, wherein the method is a quality control method.

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30. (Withdrawn) The method of claim 17, wherein the values are extracted on a routine basis to insure quality control.
31. (Withdrawn) The method of claim 17, wherein the method is a quality assurance method.
32. (Withdrawn) The method of claim 17, wherein the values are extracted on a routine basis to insure quality assurance.
33. (Withdrawn) A method of providing product consistency comprising the steps of:
- a) obtaining an absorptometry curve by combining a particulate material with a liquid in an absorptometer;
 - b) extracting at least one value from the absorptometry curve; and
 - c) maintaining the value within a target range for the particulate material,
- wherein the liquid is not dibutyl phthalate or a hydrocarbon.
34. (Withdrawn) The method of claim 33, wherein the particulate material is carbonaceous.
35. (Withdrawn) The method of claim 33, wherein the particulate material is carbon black.
36. (Withdrawn) The method of claim 33, wherein the liquid is selected from the group consisting of: water, ethylene glycol, and mixtures thereof.

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37. (Withdrawn) The method of claim 33, wherein the absorptometry curve is obtained by measuring torque versus volume of the liquid added.
38. (Withdrawn) The method of claim 33, wherein the value extracted from the absorptometry curve is selected from the group consisting of: the maximum torque, the volume of liquid at the maximum torque, the volume of liquid at a percentage of the maximum torque, the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.
39. (Withdrawn) The method of claim 33, further comprising the step of adjusting at least one process variable of a process for producing the particulate material, wherein the adjustment maintains the value within the target range.
40. (Withdrawn) The method of claim 39, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.
41. (Withdrawn) The method of claim 33, further comprising the step of maintaining at least one morphological value within a morphological target range.
42. (Withdrawn) The method of claim 33, further comprising the step of maintaining at least one chemical value within a chemical target range.

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43. (Withdrawn) The method of claim 33, wherein the value is determined during the process for producing the particulate material.
44. (Withdrawn) The method of claim 33, wherein the value is determined prior to shipping the particulate material to a customer.
45. (Withdrawn) The method of claim 33, wherein the method is a quality control method.
46. (Withdrawn) The method of claim 33, wherein the value is extracted on a routine basis to insure quality control.
47. (Withdrawn) The method of claim 33, wherein the method is a quality assurance method.
48. (Withdrawn) The method of claim 33, wherein the values are extracted on a routine basis to insure quality assurance.
49. (Withdrawn) A method of providing product consistency comprising the steps of:
- a) obtaining an absorptometry curve by combining a particulate material with a liquid in an absorptometer;
 - b) extracting at least one value from the absorptometry curve; and
 - c) maintaining the value within a target range for the particulate material,
- wherein the value is not the characteristic volume.

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50. (Withdrawn) The method of claim 49, wherein the particulate material is carbonaceous.
51. (Withdrawn) The method of claim 49, wherein the particulate material is carbon black.
52. (Withdrawn) The method of claim 49, wherein the liquid is selected from the group consisting of: dibutyl phthalate, paraffin oil, water, ethylene glycol, and mixtures thereof.
53. (Withdrawn) The method of claim 49, wherein the absorptometry curve is obtained by measuring torque versus volume of the liquid added.
54. (Withdrawn) The method of claim 49, wherein the value extracted from the absorptometry curve is selected from the group consisting of: the maximum torque, the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.
55. (Withdrawn) The method of claim 49, further comprising the step of adjusting at least one process variable of a process for producing the particulate material, wherein the adjustment maintains the value within the target range.
56. (Withdrawn) The method of claim 55, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.

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57. (Withdrawn) The method of claim 49, further comprising the step of maintaining at least one morphological value within a morphological target range.
58. (Withdrawn) The method of claim 49, further comprising the step of maintaining at least one chemical value within a chemical target range.
60. (Withdrawn) The method of claim 49, wherein the value is determined during the process for producing the particulate material.
61. (Withdrawn) The method of claim 49, wherein the value is determined prior to shipping the particulate material to a customer.
62. (Withdrawn) The method of claim 49, wherein the method is a quality control method.
63. (Withdrawn) The method of claim 49, wherein the value is extracted on a routine basis to insure quality control.
64. (Withdrawn) The method of claim 49, wherein the method is a quality assurance method.
65. (Withdrawn) The method of claim 49, wherein the values are extracted on a routine basis to insure quality assurance.

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66. (Currently amended) A method of providing product consistency of particulate material comprising ~~the step of:~~ maintaining at least one value extracted from at least two absorptometry curves of a particulate material within target ranges, wherein at least one first absorptometry curve is obtained by combining the particulate material with a first liquid in an absorptometer; and wherein at least one second absorptometry curve is obtained by combining the particulate material with a second liquid in an absorptometer.

67. (Withdrawn) A method of providing product consistency comprising the step of:
maintaining at least two different values extracted from an absorptometry curve of a particulate material within target ranges, wherein the absorptometry curve is obtained by combining the particulate material with a liquid in an absorptometer.

68. (Withdrawn) A method of providing product consistency comprising the step of:
maintaining at least one value extracted from an absorptometry curve of a particulate material within a target range, wherein the absorptometry curve is obtained by combining the particulate material with a liquid in an absorptometer, and wherein the liquid is not dibutyl phthalate or a hydrocarbon.

69. (Withdrawn) A method of providing product consistency comprising the step of:
maintaining at least one value extracted from an absorptometry curve of a particulate material within a target range, wherein the absorptometry curve is obtained by combining the particulate material with a liquid in an absorptometer, and wherein the value is not the

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characteristic volume.

70. (New) A method of claim 1, wherein said adjusting of said process is performed when said comparing indicates that at least one of the first and second absorptometry values is not within about 25% of said respective first and second target values.

71. (New) A method of claim 1, wherein said adjusting of said process is performed when said comparing indicates that at least one of the first and second absorptometry values is not within about 10% of said respective first and second target values.

72. (New) A method of claim 1, wherein said adjusting of said process is performed when said comparing indicates that at least one of the first and second absorptometry values is not within about 5% of said respective first and second target values.

73. (New) A method of claim 1, wherein the first absorptometry curve and the second absorptometry curve are obtained by measuring torque versus volume of the liquid added, and the values extracted from the first absorptometry curve and the second absorptometry curve are the maximum torque.